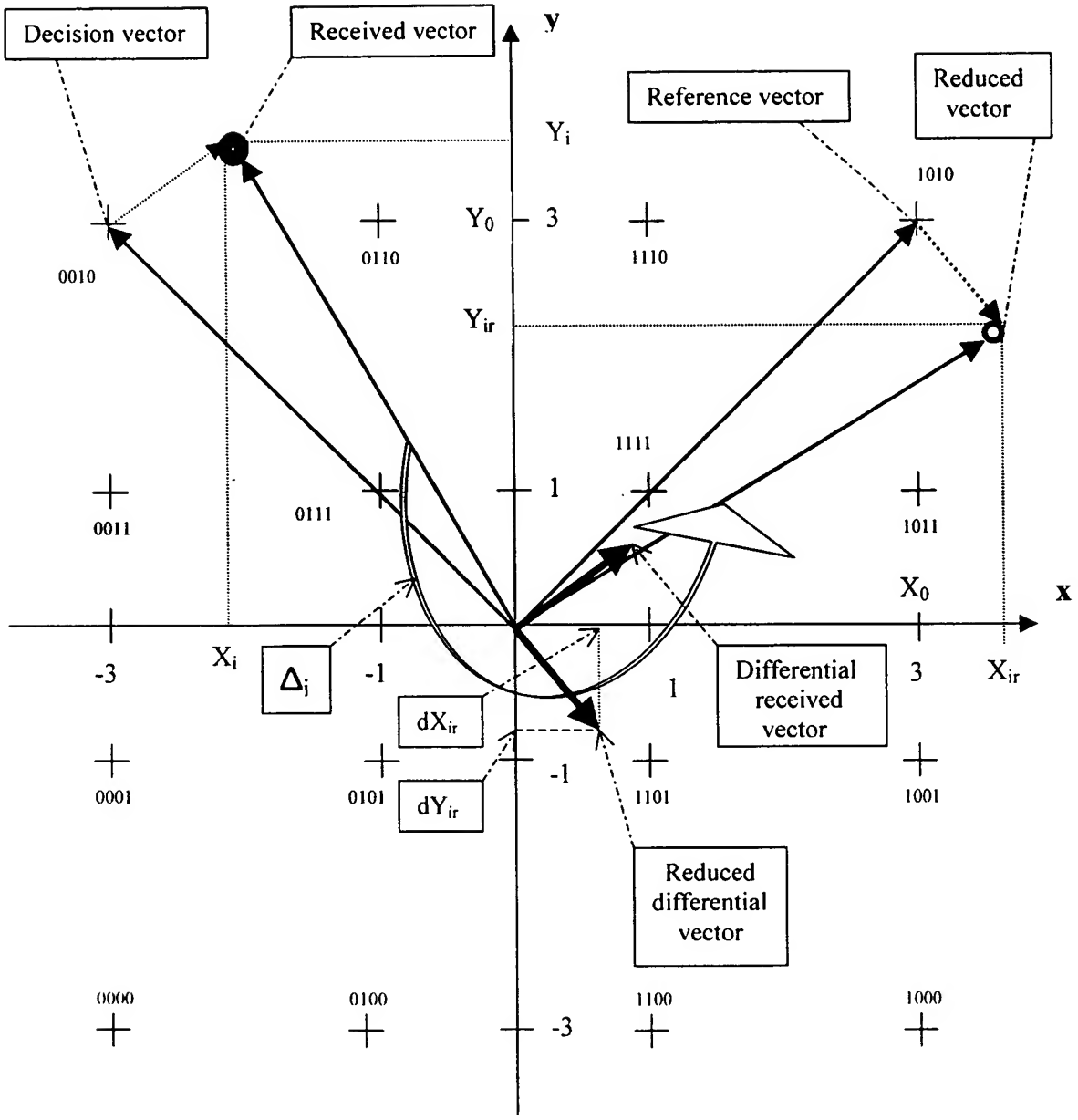
Fig.1 Example of signals in 2-dimension space



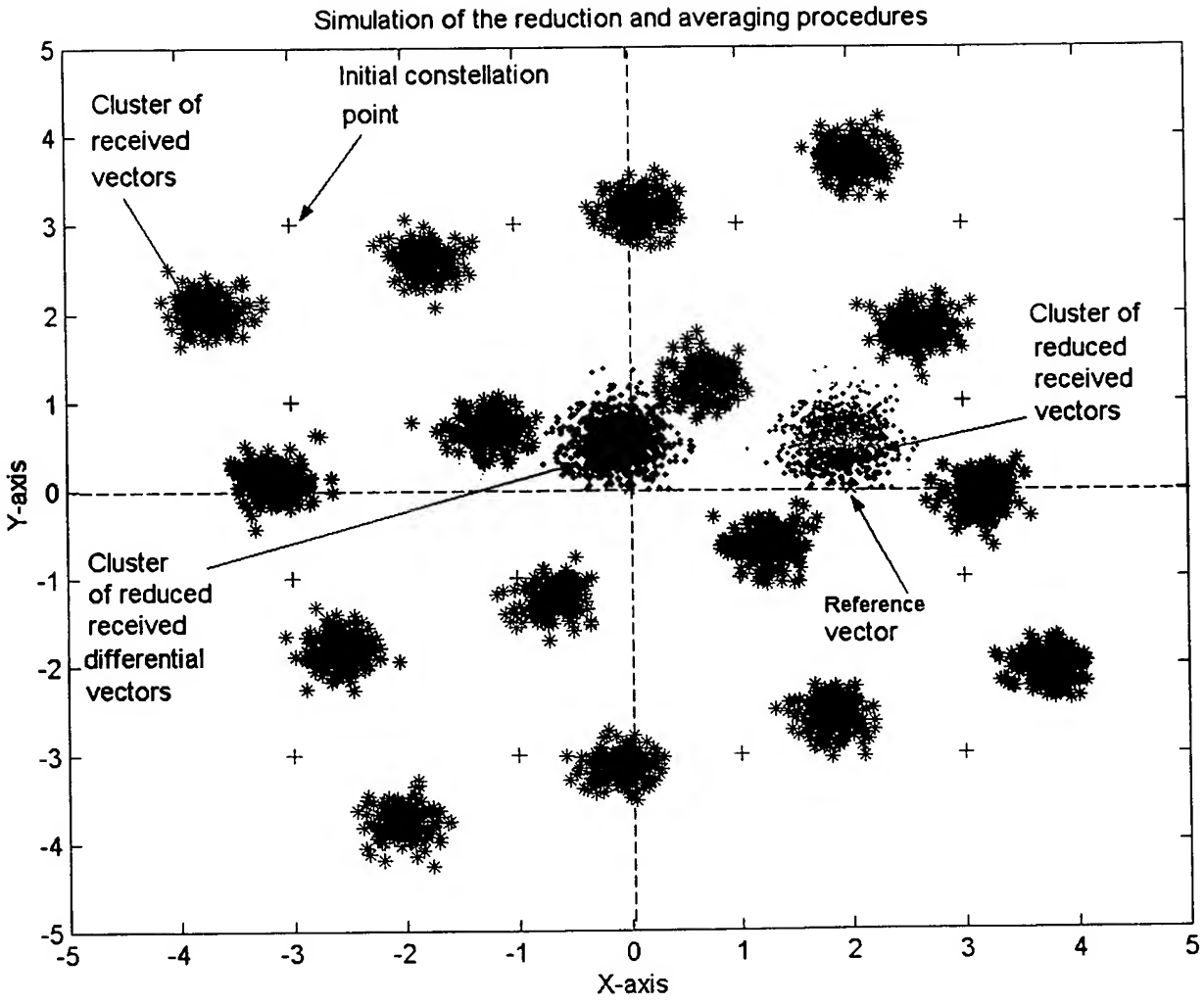

Simulation of the reduction and averaging procedures
Initial constellation point
Cluster of received vectors
Cluster of reduced received vectors
Cluster of reduced received differential vectors
Reference vector
Y-axis
X-axis
5
4
3
2
1
0
-1
-2
-3
-4
-5
-5
-4
-3
-2
-1
0
1
2
3
4
5

FIG. 2

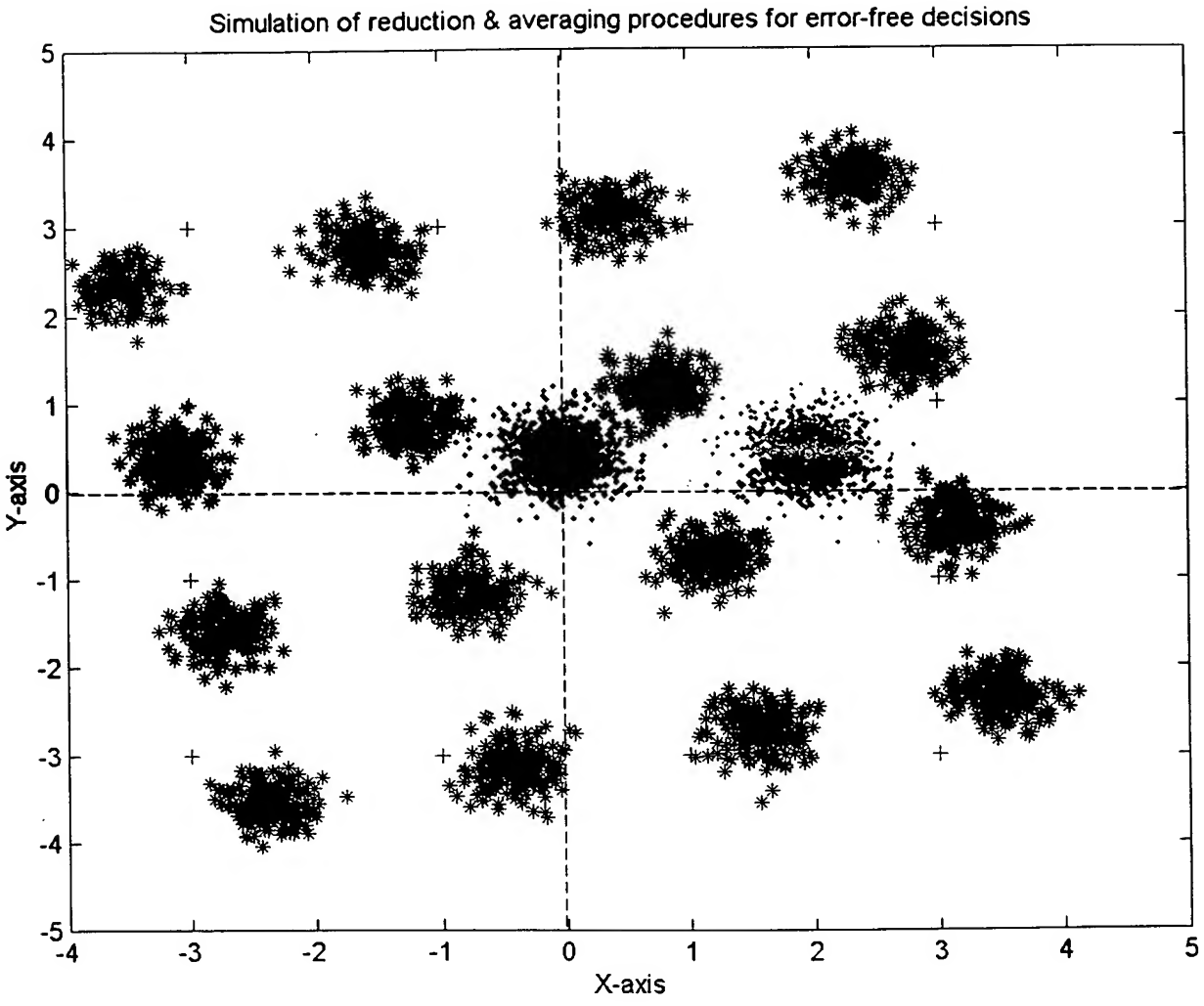

Simulation of reduction & averaging procedures for error-free decisions
Y-axis
X-axis
5
4
3
2
1
0
-1
-2
-3
-4
-5
-4
-3
-2
-1
0
1
2
3
4
5

FIG. 3

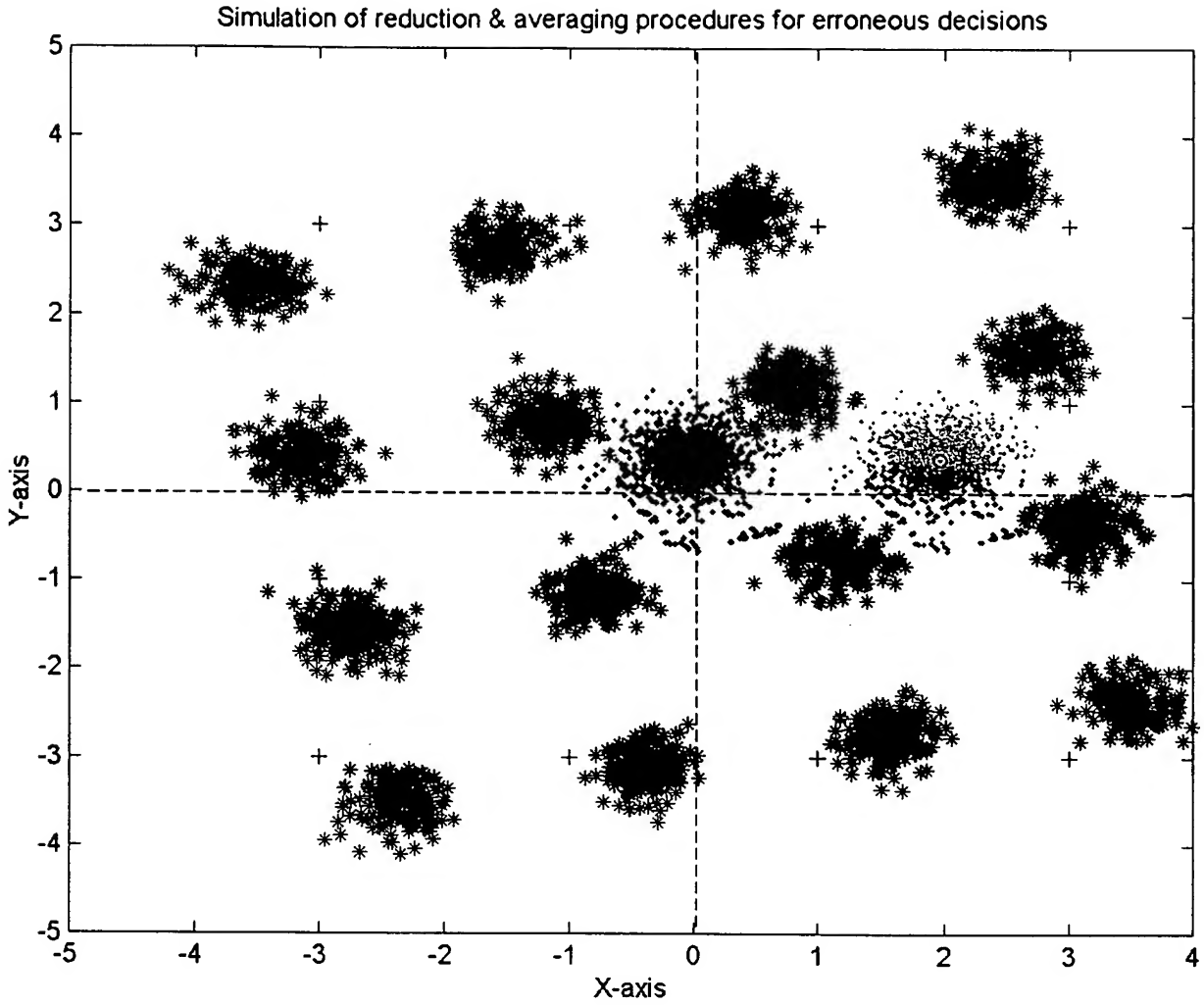

Simulation of reduction & averaging procedures for erroneous decisions
Y-axis
X-axis
5
4
3
2
1
0
-1
-2
-3
-4
-5
-5
-4
-3
-2
-1
0
1
2
3
4

FIG. 4

Fig.5 Correction of the received signal, based on reduction and averaging differential quadrature components of the received signals

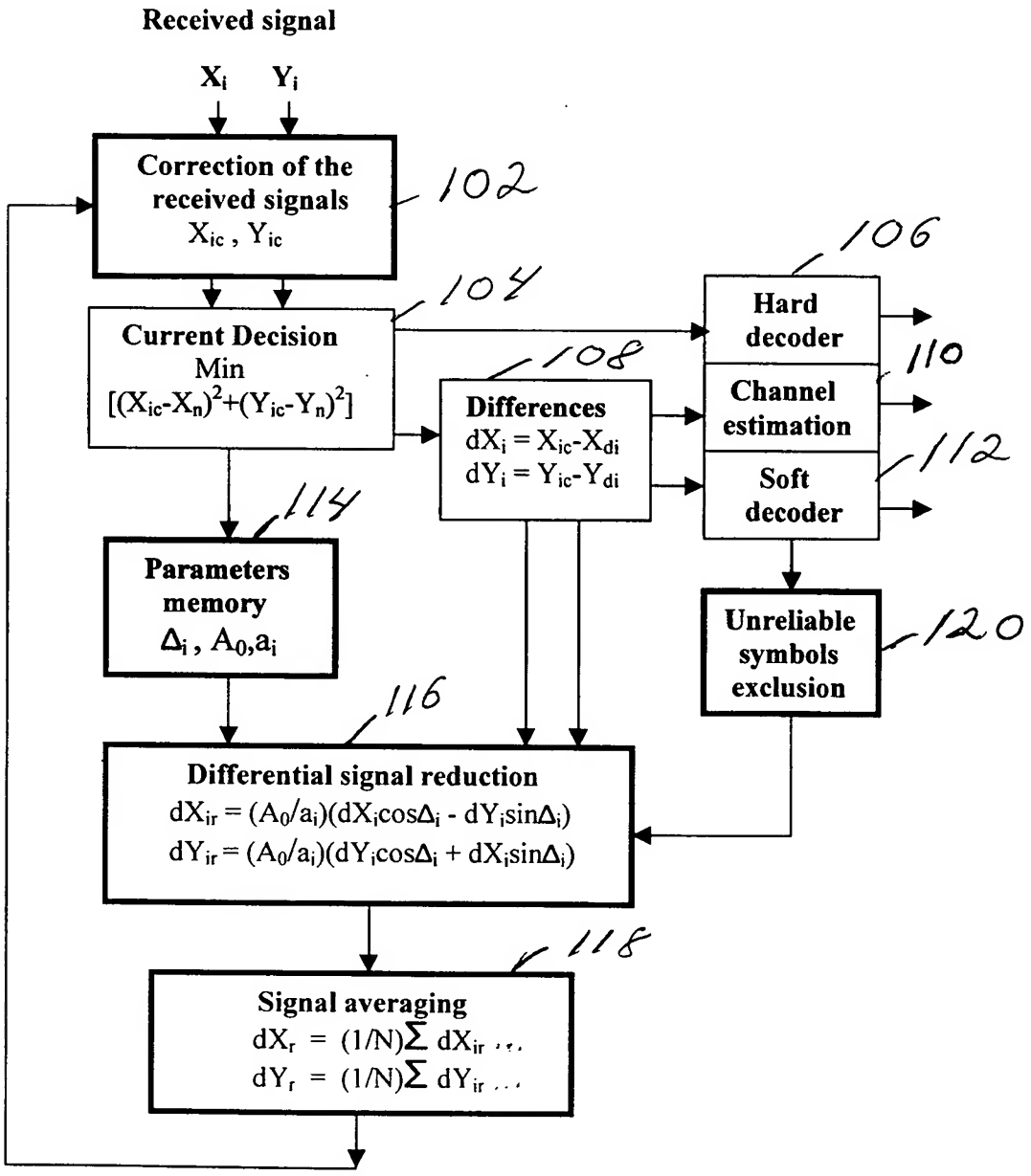


Fig.6 Correction of the constellation point coordinates, based on reduction and averaging differential quadrature components of the received signals

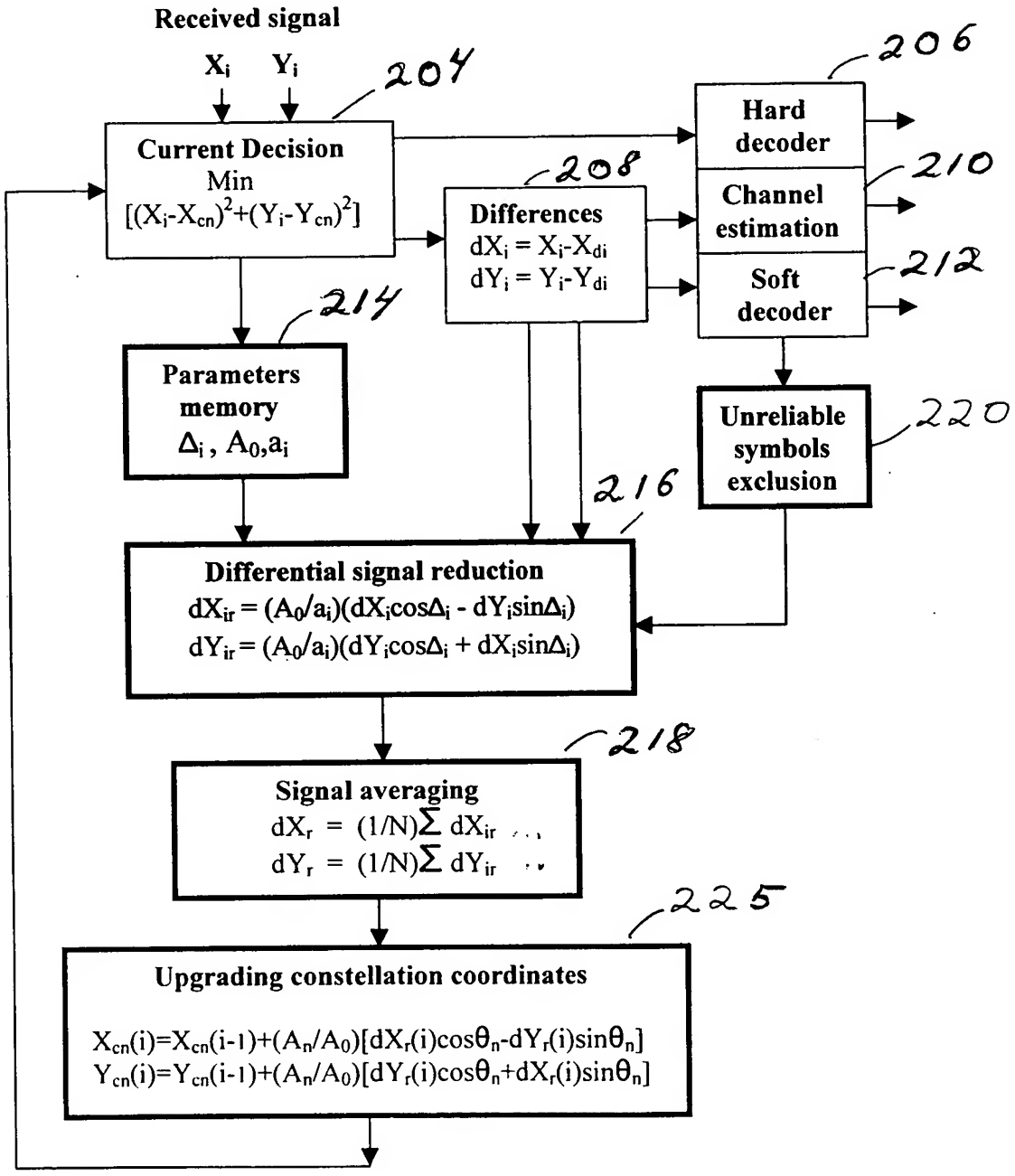


Fig.7 Correction of the received carriers in multicarrier system with correlated phase shifts, based on differential quadrature components of the received carriers

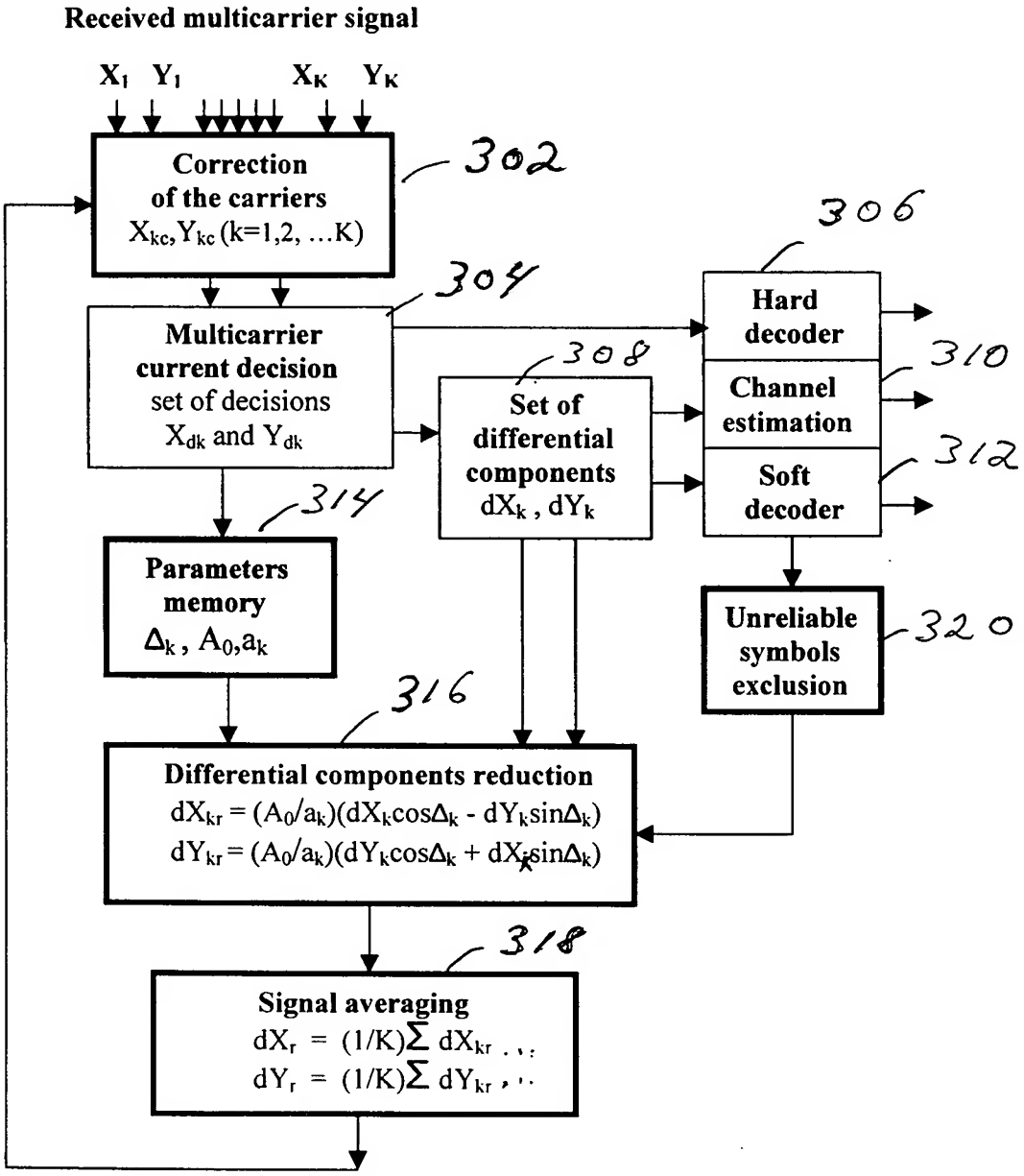


Fig.8 Correction of the constellation point coordinates in a multicarrier system with correlated phase shifts, based on differential quadrature components of the received carriers.

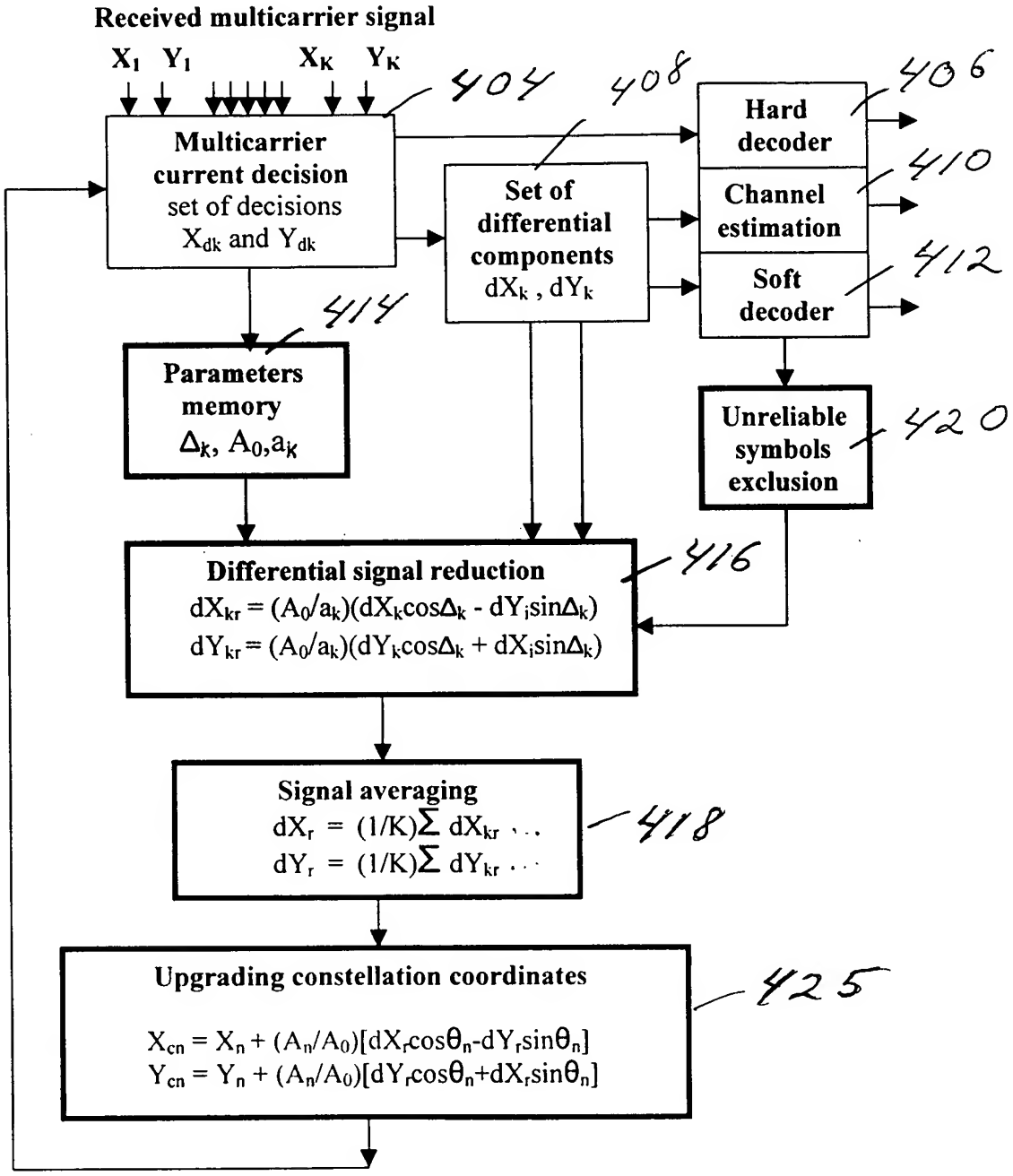


Fig. 9 Illustration to the simplified algorithms of phase correction.

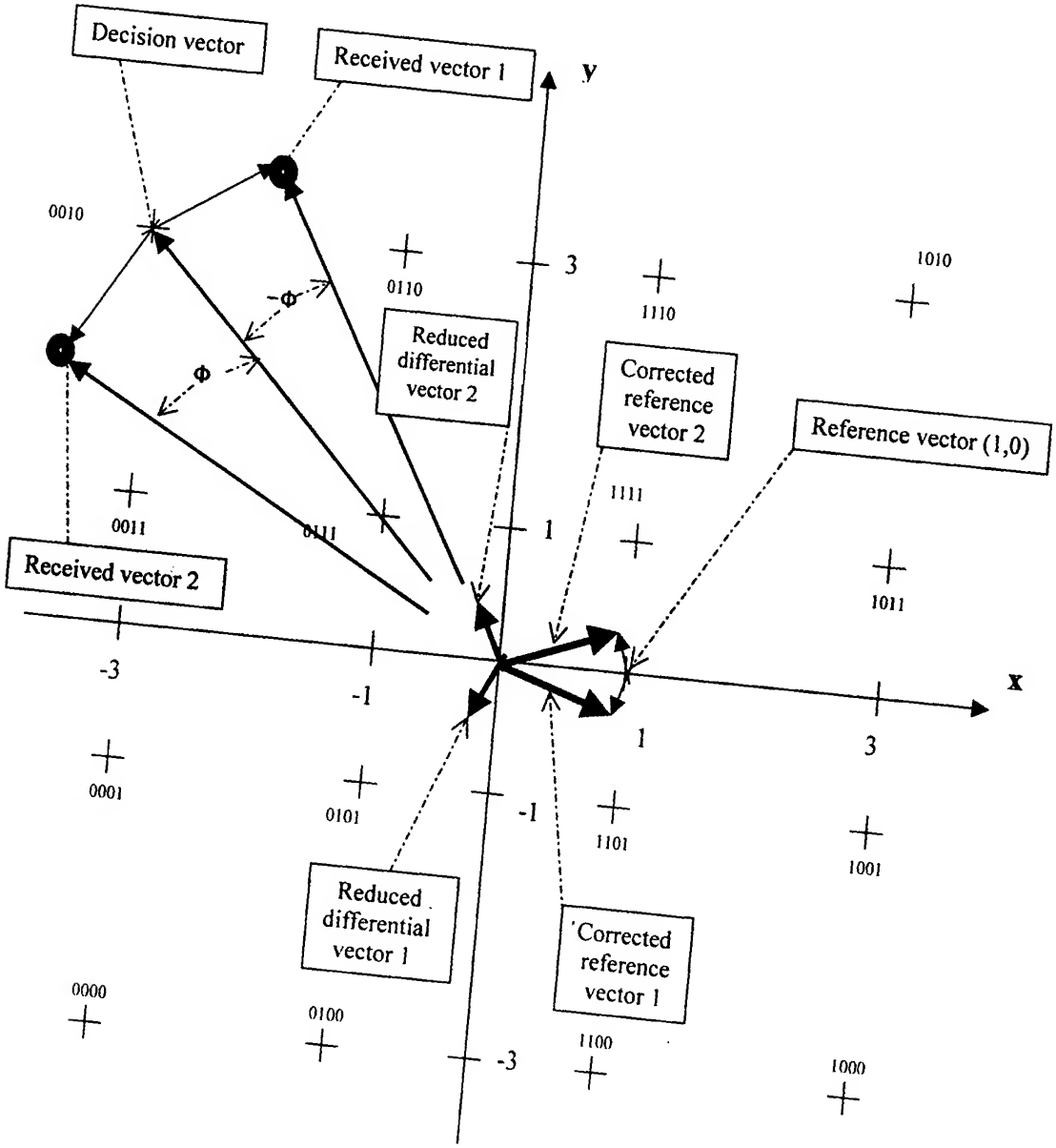


Fig. 10 Simplified carrier phase correction in multicarrier systems, based on the quadrature differential components.

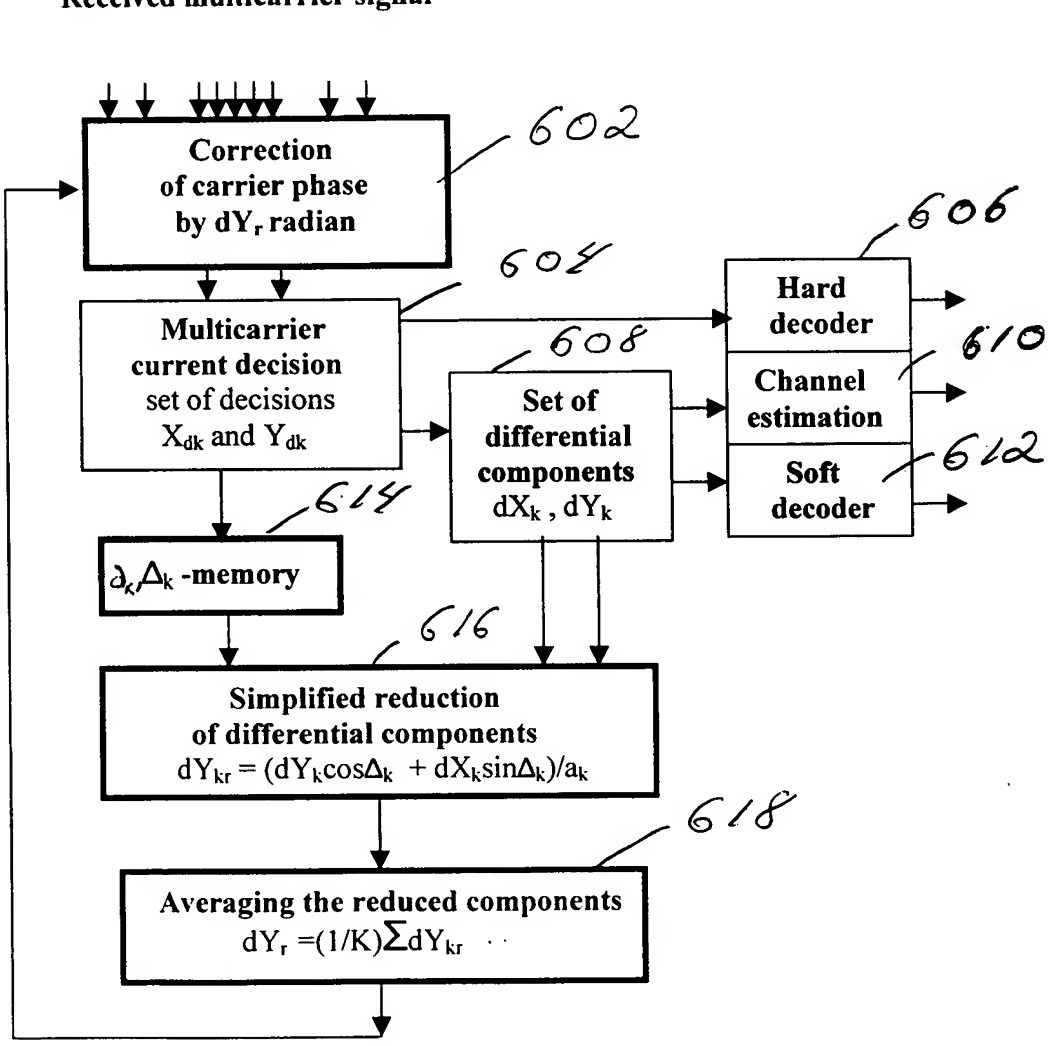


Fig. 11 Majority algorithm of carrier phase correction in multicarrier systems, based on the quadrature differential components.

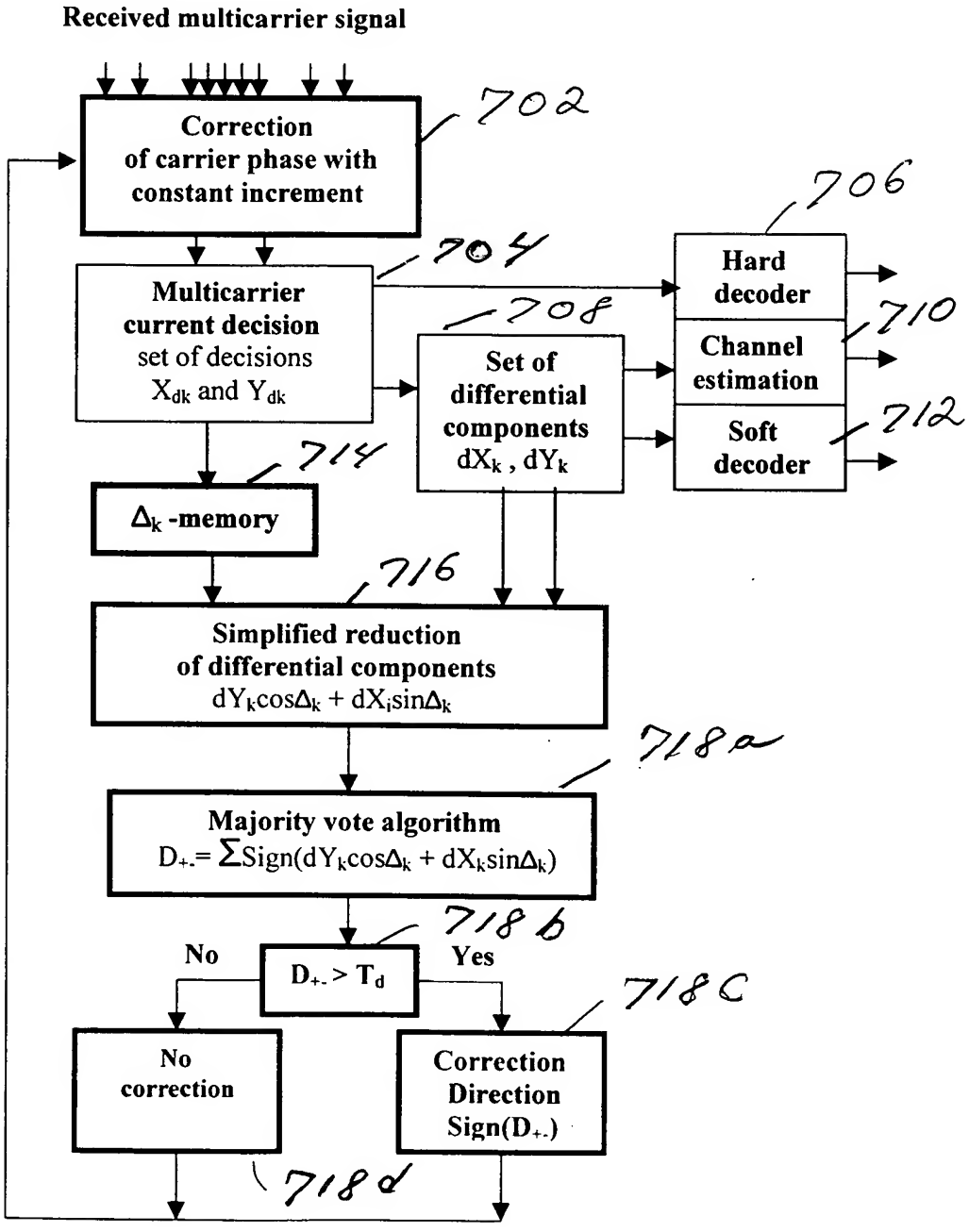


Fig. 12 Per-carrier adaptive equalizer, based on estimates of differential quadrature components.